NOTES

DIGITARIA ISCHAEMUM (GRAMINEAE) IN MISSISSIPPI AND TEXAS.—Although the second edition of Hitchcock's *Manual of Grasses of the United States* (1952) assigns the introduced *Digitaria Ischaemum* Schreber an all-inclusive range ("Quebec to Georgia, west to Washington and California"), the map (p. 578) shows no records for most of the southernmost states. The obviously expectable spread of the weed to two more of those states can now be reported. MISSISSIPPI. Clarke Co.: south side of Quitman, *Shinners 29,074*, 26 Oct. 1960. Coahoma Co.: Clarksdale, *Shinners 25,587*, 29 Oct. 1956. Wayne Co.: 5 miles southeast of Waynesboro, *Shinners 29,062*, 26 Oct. 1960. TEXAS. Camp Co.: 4.4 miles north of Pittsburg, *Shinners 16,140*, 16 Sept. 1953. Cass Co.: 4½ miles east of Hughes Springs, *Eula Whitehouse 20,247*, 26 Sept. 1948. Shelby Co.: 2 miles west-northwest of Joaquin, *Shinners 22,351*, 10 Oct. 1955. (All collections at SMU.) This more or less northern species is exceedingly similar to the pantropical (believed to be originally Asian) *D. violascens* Link, which is widespread and common in the Gulf states. Descriptions and keys treating these two in Hitchcock's *Manual* and in Henrard's *Monograph of the Genus Digitaria* (1950) are partly contradictory and not reliable. After much effort, the best separation I can make for them is as follows, based on 57 specimens of *D. Ischaemum* (47 U.S., 9 European, 1 Asian) and 31 of *D. violascens* (30 U.S., 1 West Indian).

Width of racemes 1.3—2.0 mm. (smallest measurements on short racemes of small plants); spikelets 1.7—2.3 mm. long, mostly attached in 2's or 3's (singly near base and tip of raceme) . . . *D. Ischaemum*

Width of racemes 0.8—1.5 mm. (largest measurements on long racemes of large plants); spikelets 1.3—1.8 mm. long, mostly attached singly or in 2's, but often in 3's near middle of racemes . . . . *D. violascens*

Much is made by Henrard of difference in type of hairs on the spikelets, *D. Ischaemum* being characterized by capitellate hairs, *D. violascens* by verrucose ones. With the usual magnifications of up to 10 diameters it is impossible to make out this difference, and even with magnifications up to 30 diameters I could not make a satisfactory separation of available material. Spikelet pubescence varies in abundance and length in both species, and according to Henrard himself, even in kind in *D. violascens* (he notes that some spikelets on the type specimen have ordinary, non-verrucose hairs). This feature seems to me to be a matter of minor genetic variation, not a character so fundamental that it can be used to define entire sections of the genus. In his comments under *D. violascens*, he states that *D. Ischaemum* (which he places in a different section) differs in "longer, thicker spikelets, about 2½ mm. long,

glabrous pedicels. . . ." But under the latter species he accepts as valid a var. *asiatica* Ohwi with spikelets only 1.5—1.9 mm. long. I have seen no spikelets as large as 2.5 mm. among the 57 sheets of *D. Ischaemum* examined, nor are the pedicels always glabrous, but commonly variously scabrous or puberulent at summit or throughout. In *D. violascens*, according to Henrard, the spikelets are "scarcely 2 mm. long, mostly 1.6—1.8 mm. . . . with scabrous pedicels." The range in spikelet size for the 31 specimens examined was 1.3—1.8 mm., as stated in the key, and the pedicels are variously scabrous or puberulent as in *D. Ischaemum*. In Hitchcock's *Manual*, *D. Ischaemum* is keyed as having spikelets 2 mm. long, 1 mm. wide, the hairs "or most of them" capitellate, while *D. floridana* Hitchcock and *D. violascens* are separated on the basis of spikelets 1.5 to 1.7 mm. long, about 0.6 mm. wide, the hairs not capitellate. The two latter are then differentiated as "Sterile lemma with 5 distinct nerves; spikelets sparingly pubescent, 1.7 mm. long" (but in the description stated to be 1.5 to 1.7 mm.); "fertile lemma light brown; racemes, if more than 2, not digitate" for *D. floridana*, "Sterile lemma with 3 distinct nerves; spikelets distinctly pubescent, 1.5 mm. long; fertile lemma dark brown, racemes usually all digitate" for *D. violascens*. For the 31 sheets of *D. violascens* examined, none of these characters will stand up. Henrard, who saw fragments of the type and only known collection of *D. floridana* (from Hernando Co., Florida), adds that it shows only non-verrucose hairs, and refers it to still another section of the genus. I strongly suspect that *D. floridana* is merely a form of *D. violascens* in which the non-verrucose hairs, conceded by Henrard himself to be present with the verrucose ones, are the predominant or exclusive type.

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CHROMOSOMES OF TWO MORAEA (IRIDACEAE) FROM SOUTHERN AFRICA.—A new basic number of $x=6$ in *Moraea* has recently been reported for 2 South African species by Riley (Canad. J. Genet. & Cytol. 4: 50-55, 1962). Two additional species can now be assigned to this line.

M. erici-rosenii Fries — $n=6$, $2n=12$ (from 6 plants). N. RHODESIA: Mwinilunga Dist., Zambesi River rapids, 4 miles N of Kalene mission, 10 Nov. 1962, *Lewis 6224* (K, US, MO). "Collected at the base of massive granite outcrops among islands of grasses and sedges in black, shallow, wet soil; almost indistinguishable among other monocots until tepals open daily at 4 p.m. till dark." The species has been found sporadically throughout southern Africa, but its rarity can be at least partially attributed to late afternoon flowering for at other times of the day plants are very difficult to locate. Mitotic chromosomes from untreated cells